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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/956,924	09/21/2001	Hideaki Yagi	Q66252	2470

7590 02/24/2004
SUGHRUE MION ZINN MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

RAGONESE, ANDREA M

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 02/24/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding..

Office Action Summary

Application N .

09/956,924

Applicant(s)

YAGI ET AL.

Examiner

Andrea M. Ragonese

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) 1-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on December 22, 2003 has been entered. Examiner acknowledges that **claims 1-2** have been amended.

Response to Arguments

2. Applicant's arguments with respect to **claims 1-12** have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

4. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

5. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. **Claims 1-12** are provisionally rejected under the judicially created doctrine of double patenting over claims 1, 4-10, 12, 14-22 and 24-32 of copending Application No. 09/956,925 or over claims 1-17 of copending Application No. 09/957,030. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

7. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: oxygen supply apparatus with a sensor for detecting the state of breathing of the user.

8. Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Objections

9. **Claims 1-12** are objected to because of the following informalities: in **claim 1**, line 6, "breadth-synchronized" should be deleted and – breath-synchronized – inserted therefor. Appropriate correction is required.

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10. **Claims 11-12** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, dependent **claim 11** recites a controller which does not properly further limit the oxygen enriching apparatus as claimed in **claim 1**. In addition, dependent **claim 12** recites a recording medium which does not properly further limit the controller as claimed in **claim 11** or the oxygen enriching apparatus as claimed in **claim 1**.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. **Claim 10** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not make mention of the switch that is claimed in **claim 10**. Sufficient support of this claimed element should be added to the specification.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. **Claims 1-6 and 10** are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 4,681,099). Sato et al. discloses an oxygen enriching apparatus **1** which enriches oxygen contained in the air to thereby obtain oxygen-enriched gas (column 6, lines 40-59), and which supplies the oxygen-enriched gas to a user **22** synchronously with inhalation of the user **22** by means of a breath synchronizing function (column 7, lines 41-49), which comprises:

- means **17** for supplying the oxygen-enriched gas at a first flow rate equal to or less than a continuous base flow rate when a breath-synchronized operation is not performed, wherein the continuous base flow rate is a flow rate at which the oxygen enriching apparatus **1** can supply the oxygen-enriched gas continuously (column 6, line 60-column 7, line 9);
- means **29** in combination with valve **24** for supplying the oxygen-enriched gas at a second flow rate greater than the continuous base flow rate over an inhalation period having a length 25 to 40% that of a breathing cycle of the user **22** when a breath-synchronized operation is performed (column 11, line 49-column 12, line 12), as depicted in Figures 7A-7C;

- means **21** for establishing the continuous base flow rate equal to or less than 4 liters/min (column 7, lines 19-30), as depicted in Table 2;
- means **29** for detecting the state of inhalation or exhalation including a sensor **28**, and for controlling supply of the oxygen-enriched gas based on a signal output from the sensor **28** (column 7, lines 41-49);
- means **29** for determining a timing for starting or ending supply of the of the oxygen-enriched gas in the breathing cycle, based on the sensor **28** signal, as shown in Figure 1;
- means **29** in combination with CPU **49** and timer **50** for detecting the state of inhalation or exhalation one time or a plurality of number of times on the basis of a signal output from the sensor **28**, and for determining the timing for starting or ending subsequent supply of the oxygen-enriched gas based on the thus-detected state of inhalation or exhalation (column 12, lines 13-57);
- a tank **23** provided in an oxygen-enriched-gas supply passage on the downstream side of an oxygen enriching section **1**, for accumulating oxygen-enriched gas supplied during the exhalation period of each breathing timing (column 7, lines 25-30); and
- a switch **55** for setting a flow rate of the oxygen-enriched gas, wherein when the flow rate is set by use of the switch **55** to the first flow rate equal to or less than the continuous base flow rate, the oxygen enriching apparatus **1** supplies the oxygen-enriched gas continuously, and when the flow rate is set by use of the switch **55** to the second flow rate greater than the continuous

base flow rate, the oxygen enriching apparatus 1 supplies the oxygen-enriched gas by means of the breath-synchronized operation (column 8, lines 29-47).

15. Given the fact that applicant recites the combination of a controller for controlling operation of an oxygen enriching apparatus and the oxygen enriching apparatus itself [see claim objection in paragraph 10 of this Office action], **claim 11** is rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 4,681,099). Specifically, it appears that **claim 11** is limited to the controller itself as a subcombination. Given this interpretation, the cited prior art is considered applicable to the claimed invention. Sato et al. discloses a controller 29 for controlling operation of an oxygen enriching apparatus 1 which enriches oxygen contained in the air to thereby obtain oxygen-enriched gas (column 6, lines 40-59), and which supplies the oxygen-enriched gas to a user 22 synchronously with inhalation of the user 22 by means of a breath synchronizing function (column 7, lines 41-49). Additional support for the rejection of the claimed elements of **claim 1** can be found in paragraph 14 of this Office action.

16. Given the fact that applicant recites the combination of a recording medium having recorded thereon means for executing the function of a controller [see claim objection in paragraph 10 of this Office action], a controller for controlling operation of an oxygen enriching apparatus and the oxygen enriching apparatus itself, **claim 12** is rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 4,681,099). Specifically, it appears that **claim 12** is limited to the recording medium itself as a subcombination. Given this interpretation, the cited prior art is considered applicable to

the claimed invention. Sato et al. discloses a recording medium **53** (column 9, lines 4-16) having recorded thereon means for executing the function of a controller **29**, wherein the controller **29** is utilized for controlling operation of an oxygen enriching apparatus **1** which enriches oxygen contained in the air to thereby obtain oxygen-enriched gas (column 6, lines 40-59), and which supplies the oxygen-enriched gas to a user **22** synchronously with inhalation of the user **22** by means of a breath synchronizing function (column 7, lines 41-49). Additional support for the rejection of the claimed elements of **claim 1** can be found in paragraph 14 of this Office action.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. **Claims 7-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 4,681,099) in view of Davenport (US 6,237,594). Sato et al. discloses an oxygen enriching apparatus comprising all the limitations recited in **claims 7-9**, with the exception of a plurality of tanks provided in series in an oxygen-enriched-gas supply passage. However, the use of one or more tanks in an oxygen supply passage was known at the time of the invention. Specifically, Davenport teaches the use of a number of tanks **46, 50** in an oxygen supply device **10** for allowing the device **10** to deliver a broad range of flow to the patient **12** without negatively impacting the performance of the valves and sensors (column 8, line 57-column 9, line 13). A check valve **62** is provided between the tanks **46, 50**. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the oxygen enriching apparatus **1** of Sato et al. to include additional tanks in the gas supply line because, as taught by Davenport, it is well-known in the art to use multiple tanks in series in order to allow the apparatus to deliver gas over a wide range of flow rates without negatively impacting the performance of the valves and sensors.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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21. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

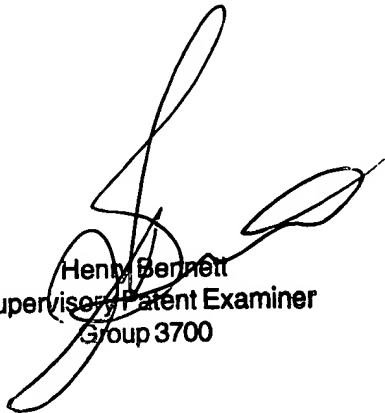
22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Andrea M. Ragonese** whose telephone number is **(703) 306-4055**. The examiner can normally be reached on Monday through Thursday from 8 am until 4 pm ET.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A. Bennett can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

amr
February 20, 2004



Henry Bennett
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